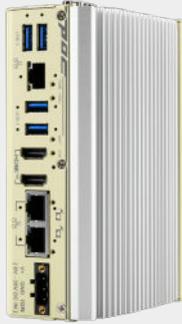# POC-600

Intel® Atom® x7425E Ultra-Compact Fanless Embedded Computer with 3x 2.5GbE & PoE+

Key Features

· **Intel® Atom® x7425E processor 12W with 4 E-Cores**
· **Rugged -25 °C to 70 °C fanless operation**
· **Up to 16GB DDR5-4800 SODIMM**
· **2x 2.5GbE PoE+ ports and 1x 2.5GbE port with screw-lock**
· **4x USB 3.2 with screw-lock**
· **Dual HDMI™ display outputs supporting 3840 x 2160 resolution**
· **Front I/O access and DIN-rail mounting design**
· **8 to 35V wide DC input and MezIO® compatible**

CONTACT US   GET QUOTE

Introduction

POC-600 is Neousys' new ultra-compact fanless embedded computer based on Intel® Atom® x7425E processor. With four efficient cores operating at only 12W TDP and support for up to 16 GB DDR5 memory, it delivers up to 1.5x CPU performance improvement and higher memory bandwidth compared to previous Atom® platforms, making it a reliable solution for next-generation industrial edge deployments.
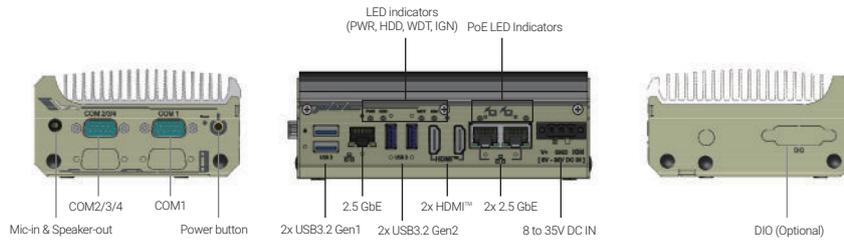
Despite its small form factor, POC-600 delivers comprehensive connectivity. It integrates three 2.5GbE ports powered by Intel® I226-IT controllers, with an option for two PoE+ ports to power cameras or sensors. The system also provides dual HDMI™ 1.4b outputs supporting 3840 x 2160 resolution, four screw-lock USB3.2 ports for reliable high-speed connections, as well as versatile serial communication with one software-programmable RS-232/ 422/ 485 and additional RS-232 or RS-422/ 485 ports. For storage, POC-600 supports one M.2 2280 SATA device and Neousys' proprietary MezIO® interface for adding application-specific functions such as isolated DIO, ignition control, or wireless modules.

With its balance of performance, low power consumption, and robust I/O capabilities, POC-600 is designed for a wide range of industrial applications. It is ideal for machine vision systems requiring multiple high-speed camera connections and smart transportation that demands reliable PoE+ networking. Sharing the same compact footprint as POC-400 and POC-300, POC-600 allows seamless system upgrades and supports DIN-rail mounting for easy and secure installation in industrial control cabinets or confined spaces, enabling next-generation industrial automation and intelligent edge solutions.
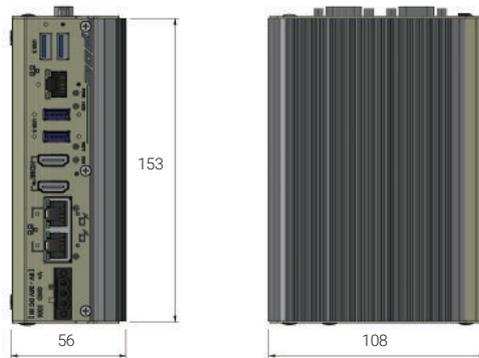
Specifications

System Core

Processor	Intel® Atom® x7425E processor 12W with 4 E-Cores (4C/4T, 1.5 /3.4 GHz, 12W TDP)
Graphics	Integrated Intel® UHD Graphics with 24EUs
Memory	Up to 16 GB DDR5-4800 SDRAM (one SODIMM socket)
TPM	Supports dTPM 2.0

I/O Interface

Ethernet	3x 2.5Gb Ethernet ports by Intel® I226-IT GbE controllers
PoE+	IEEE 802.3at PoE+ on port #2 and #3, 50 W total power budget (Only for POC-600)
Native Video Port	2x HDMI™ 1.4b, Supporting 3840 x 2160
Serial Port	1x Software-programmable RS-232/422/485 ports (COM1) 3x 3-wire RS-232 ports (COM2/3/4) or 1x RS-422/485 port (COM2)
USB	2x USB 3.2 Gen1 with screw-lock 2x USB 3.2 Gen2 with screw-locK

Storage Interface

M.2 M key	1x M.2 2280 SATA interface

Expansion Bus

Expandable I/O	1x MezIO® expansion interface for Neousys MezIO® modules

Power Supply

DC Input	1x 3-pin pluggable terminal block for 8 to 35V DC input

Mechanical

Dimension	56 mm (W) x 108 mm (D) x 153 mm (H)
Weight	0.98 kg
Mounting	DIN-rail mount (Standard) or Wall-mount (Optional)

Environmental

Operating Temperature	-25°C ~ 70°C
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
Vibration	MIL-STD-810H, Method 514.8, Category 4
Shock	MIL-STD-810H, Method 516.8, Procedure I
EMC	CE/FCC Class A, according to EN 55032 & EN 55035

Appearance

LED indicators
(PWR, HDD, WDT, IGN)   PoE LED Indicators

COM2/3/4   COM1

Mic-in & Speaker-out   Power button

2.5 GbE

2x USB3.2 Gen1   2x HDMI™   2x 2.5 GbE

2x USB3.2 Gen2   8 to 35V DC IN

DIO (Optional)

Dimensions

Unit : mm

153

56   108

Ordering Information

Model No.	Product Description
POC-600	Intel® Atom® x7425E ultra-compact DIN-rail fanless rugged computer with 1x 2.5GbE, 2x 2.5G PoE+ and 4x USB 3.2
POC-610	Intel® Atom® x7425E ultra-compact DIN-rail fanless rugged computer with 3x 2.5GbE and 4x USB 3.2

Optional Accessories

PA-60W-OW	60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. Operating temperature : -30 to 60 °C
PA-120W-OW	120W AC/DC power adapter with 20V, 6A DC output, cord end terminals for terminal block. Operating temperature : -30 to 70°C
Wmkit-V-POC300_400	Wall mounting assembly for POC-300, POC-400, POC-40, POC-600 series, vertical type
Wmkit-H-POC300_400	Wall mounting assembly for POC-300, POC-400, POC-600 series, horizontal type
Cbl-DB9F-3DB9M-15CM	1x DB9 (Female) to 3x DB9 (Male), length: 15CM
MezIO® Modules	
MezIO®-C180	MezIO® module with 4x RS-232/ 422/ 485 ports and 4x RS-232 ports
MezIO®-C181	MezIO® module with 4x RS-232/ 422/ 485 ports and 4x RS-422/ 485 ports
MezIO®-D330	MezIO® module with 16-CH isolated DI and 16-CH isolated DO
MezIO®-R11	MezIO® module with SATA port for 2.5" HDD/ SSD
MezIO®-R12	MezIO® module with SATA port for 2.5" HDD/ SSD, 4-CH isolated DI and 4-CH isolated DO
MezIO®-U4-30	MezIO® module with 4x USB3.1 ports
MezIO®-V21	MezIO® module with ignition power control function and 1x mini-PCIe socket for in-vehicle usage